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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/811,537	03/29/2004	Terrence Dwight Bender	B94.2-11495US01	2279

490 7590 03/17/2005

VIDAS, ARRETT & STEINKRAUS, P.A.
6109 BLUE CIRCLE DRIVE
SUITE 2000
MINNETONKA, MN 55343-9185

EXAMINER

ELDRED, JOHN W

ART UNIT	PAPER NUMBER
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3644

DATE MAILED: 03/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/811,537

Applicant(s)

BENDER, TERRENCE DWIGHT

Examiner

J. Woodrow Eldred

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-14 and 16-21 is/are rejected.
- 7) ☒ Claim(s) 15 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 6-23-04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claim 21 is rejected under 35 U.S.C. 102(b) as being clearly anticipated by Buss (5,814,757).

See especially Figures 1 and 3.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-4, 8, and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson (4,930,369) in view of Buss.

Johnson discloses a muzzle brake comprising the claimed elements, including a body having an internal plenum space, a plurality of angled vent slots communicating with the plenum, and a series of enlarged spaces within the plenum in addition to the projectile path. Johnson fails to disclose having a tubular cover with ports arranged over the body and with the ports in communication with the slots. See especially Figures 2 and 6, and their respective explanations in the specification. Buss teaches that it is well known to provide a ported tubular cover around a vented muzzle brake body. See especially Figures 1 and 3 and column 1, line 48-column 2, line 30. Motivation to combine is Buss' teachings that the outer cover helps improve performance by redirecting the sound away from the shooter in a more efficient manner. To apply the teachings of Buss' on the muzzle brake of Johnson and have an outer ported tubular cover is considered to have been obvious to one having ordinary skill in the art.

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5. Claims 7, 9, 11-14, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson in view of Buss as applied to claims 1-4, 8, and 10 above, and further in view of McClain III (5,036,747).

Johnson and Buss fail to disclose modifying the area of the respective vents located along the length of the muzzle brake. McClain III teaches that it is known to have vents of different size in a muzzle brake. See especially column 8, lines 31-38. Motivation to combine is McClain's teaching that the different size vents allows metering that more efficiently uses the vent gas (column 8, lines 36-38). To employ the teachings of McClain III and Buss on the muzzle brake of Johnson and have the claimed different sized vents is considered to have been obvious to one having ordinary skill in the art.

6. Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson in view of Buss as applied to claims 1-4, 8, and 10 above, and further in view of Chahin (4,869,151).

Johnson and Buss fail to disclose modifying the vent slot angles of the respective vents located along the length of the muzzle brake. Chahin teaches that it is known to have vents with different angles located along the length of the muzzle brake. See especially Figure 2. Motivation to combine is the different performance available from tailoring the angles of the vents in order to provide the desired forces from the gases exhausted from the vents. To employ the teachings of Chahin and Buss on the muzzle brake of Johnson and have the claimed different angled vents is considered to have been obvious to one having ordinary skill in the art.

7. Claims 17 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chahin (4,869,151) in view of Buss.

Chahin discloses a muzzle brake comprising the claimed elements, including a body having an internal plenum space, a plurality of slanted vent slots communicating with the plenum, and where at least two vents are arranged at different slant angles to each other. Chahin fails to disclose having a tubular cover with ports arranged over the body and with the ports in communication with the slots. See especially Figure 2 and the

respective explanation in the specification. Buss teaches that it is well known to provide a ported tubular cover around a vented muzzle brake body. See especially Figures 1 and 3 and column 1, line 48-column 2, line 30. Motivation to combine is Buss' teachings that the outer cover helps improve performance by redirecting the sound away from the shooter in a more efficient manner. To apply the teachings of Buss' on the muzzle brake of Chahin and have an outer ported tubular cover is considered to have been obvious to one having ordinary skill in the art.

8. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chahin in view of Buss as applied to claims 17 and 19 above, and further in view of McClain III (5,036,747). Chahin and Buss fail to disclose modifying the area of the respective vents located along the length of the muzzle brake. McClain III teaches that it is known to have vents of different size in a muzzle brake. See especially column 8, lines 31-38. Motivation to combine is McClain's teaching that the different size vents allows metering that more efficiently uses the vent gas (column 8, lines 36-38). To employ the teachings of McClain III and Buss on the muzzle brake of Chahin and have the claimed different sized vents is considered to have been obvious to one having ordinary skill in the art.

9. Claim 15 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Taylor, Breuer, and Bartollos are cited as being of interest since they disclose muzzle brakes.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to J. Woodrow Eldred whose telephone number is 703-306-4151. The examiner can normally be reached on Monday to Thursday, from 8:00 a.m. to 5:30 p.m..

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Teri Luu can be reached on 703-305-7421. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, reading "J. Woodrow Eldred". The signature is fluid and cursive, with the first name "J." and last name "Eldred" clearly distinguishable.

J. Woodrow Eldred
Primary Examiner
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JWE